QUALITY SINCE 1878

BROWNING®

# BAR RIFLE

## OWNER'S MANUAL

## THANK YOU FOR CHOOSING A BROWNING BAR RIFLE

The BAR Mark II Safari incorporates the very finest in materials and craftsmanship. From the receiver and stock, to the working mechanism — you can see and feel traditional Browning Belgian craftsmanship. The BAR Mark II has been designed with innovative features that result in improved performance and operating convenience. With just reasonable care, this gun should provide you with many years of pleasure and dependable service. Please feel free to write us immediately if you have any observations regarding its performance and operation.

## YOU ARE RESPONSIBLE FOR FIREARMS SAFETY

As a gun owner, you accept a set of demanding responsibilities. How seriously you take these responsibilities can be the difference between life and death.

There is no excuse for careless or abusive handling of any firearm. At all times handle your rifle and any other firearm with intense respect for its power and potential danger.

**PLEASE READ AND UNDERSTAND ALL OF THE CAUTIONS, PROPER HANDLING PROCEDURES AND INSTRUCTIONS OUTLINED IN THIS BOOKLET BEFORE USING YOUR NEW FIREARM.**

1 **ALWAYS KEEP THE MUZZLE OF YOUR RIFLE POINTED IN A SAFE DIRECTION,** even though you are certain the rifle is unloaded. Never point any firearm at anything you do not intend to shoot. Be extremely alert and aware of all persons and property within the range of your ammunition.

2 **NEVER RELY TOTALLY ON YOUR RIFLE'S MECHANICAL "SAFETY" DEVICE.** The word "safety" describes a gun's trigger block mechanism, sear block mechanism, hammer block mechanism or firing pin block mechanism. These mechanical devices are designed to place your gun in a SAFER status. No guarantee can be made that the gun will not fire even if the "safety" is in the "on safe" position. See "Operation of the Safety" on pages 8-9 for instructions on operation of this gun's "safety."

**LIKE ANY MECHANICAL DEVICE, A "SAFETY" CAN SOMETIMES FAIL; IT CAN BE JARRED OR INADVERTENTLY MANIPULATED INTO AN UNSAFE CONDITION.**

Mechanical "safeties" merely aid safe gun handling and are no excuse for pointing your rifle's muzzle in an unsafe direction.

While it is a good idea to "test" your rifle's mechanical "safeties" periodically for proper function,

**NEVER TEST IT WHILE YOUR RIFLE IS LOADED OR POINTED IN AN UNSAFE DIRECTION!**

Safe gun handling does not stop with your gun's mechanical "safety" devices — it starts there. Always treat this rifle with the respect due a loaded, ready-to-fire firearm.

3 **WHENEVER YOU HANDLE A FIREARM, OR HAND IT TO SOMEONE, ALWAYS OPEN THE ACTION IMMEDIATELY, VISUALLY CHECK YOUR RIFLE'S CHAMBER, FEED MECHANISM AND MAGAZINE.**

Make certain that they do not inadvertently contain any ammunition. Always keep the chamber empty and the "safety" in the "on safe" position unless shooting is imminent.

4 **DO NOT TRANSPORT YOUR RIFLE LOADED, WHETHER IN A SCABBARD, GUN CASE, OR OTHER CONTAINER.**

5 **HUNTING FROM ELEVATED SURFACES SUCH AS TREE STANDS IS DANGEROUS,** and may increase the risk of handling a firearm. The following rules should always be observed by you and those you hunt with: Always make certain that the stand being used is safe and stable. Always make certain that your firearm is unloaded when it is being taken up and down from the stand. Always make certain that your firearm is not dropped from the stand, or dropped while it is being taken up or down from the stand. Remember, a loaded firearm may discharge when dropped, even with the safety in the "on safe" position.

6 **BEWARE OF BARREL OBSTRUCTIONS,** for the safety of both your gun and yourself. Mud, snow, and an infinite variety of other objects may inadvertently lodge in a barrel bore. It takes only one small obstruction to cause dangerously increased pressures that can ruin (swell or rupture) the finest rifle barrels.

**BEFORE CHECKING FOR A BARREL OBSTRUCTION, BE CERTAIN NO LIVE ROUND IS IN THE CHAMBER AND THAT THE MAGAZINE IS REMOVED AND FEED MECHANISMS ARE COMPLETELY EMPTY. PLACE THE "SAFETY" IN THE "ON SAFE" POSITION.**

Look through the barrel to be sure it is clear of any obstruction. If an obstruction is seen, no matter how small it may be, clean the bore

with a cleaning rod and patch as described in "Cleaning and Maintenance Suggestions" on pages15 and 16. Before the first firing, clean the bore with a cleaning rod and patch, and wipe away any anti-rust compounds in the action/chamber areas.

7 **ALWAYS UNLOAD YOUR RIFLE WHEN NOT IN USE. REFER TO PAGES 12 AND 13 OF THIS INSTRUCTION BOOKLET EXPLAINING THE UNLOADING OF YOUR RIFLE.**

As a safety precaution, it is preferable to disassemble your gun for storage. Store your gun and ammunition separately—well beyond the reach of children. Take all safeguards to ensure your rifle does not become available to untrained, inexperienced or unwelcomed hands.

8 **USE THE PROPER AMMUNITION.** The barrel and action of this rifle have been made with substantial safety margins over the pressures developed by established American commercial loads. Nevertheless, Browning assumes no liability for incidents which occur through the use of cartridges of nonstandard dimensions which develop pressures in excess of commercially available ammunition which has been loaded in accordance with standards established by the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI). **HORNADAY LIGHT MAGNUM AMMUNITION SHOULD NOT BE USED IN A SEMI-AUTOMATIC RIFLE SUCH AS THE BAR. IT MAY DAMAGE THE FIREARM. BE ALERT TO THE SIGNS OF AMMUNITION MALFUNCTION.**

If you detect an off sound or light recoil when a cartridge is fired, **DO NOT LOAD ANOTHER CARTRIDGE INTO THE CHAMBER.**

9 **DO NOT SNAP THE FIRING PIN ON AN EMPTY CHAMBER — THE CHAMBER MAY NOT BE EMPTY!** Treat every gun with the respect due a loaded gun, even though you are certain the gun is unloaded.

10 **KEEP YOUR FINGERS AWAY FROM THE TRIGGER WHILE UNLOADING, AND LOADING, UNTIL YOU ARE READY TO SHOOT.**

11 **BE SURE OF YOUR TARGET AND BACKSTOP.** Particularly during low light periods. Know the range of your ammunition. Never shoot at water or hard objects.

12 **ALWAYS UNLOAD YOUR RIFLE'S CHAMBER BEFORE CROSSING A FENCE, CLIMBING A TREE, JUMPING A DITCH OR NEGOTIATING OTHER OBSTACLES.** Refer to pages 12 and 13 of this instruction book for instructions on the unloading of your rifle. Never place your loaded rifle on or against a fence, tree, car, or other similar object.

13 **WEAR EYE AND EAR PROTECTION WHEN SHOOTING.** Unprotected, repeated exposure to gunfire can cause hearing damage. Wear ear protectors (shooting ear plugs or muffs) to guard against such damage. Wear shooting glasses to protect your eyes from flying particles. Allow proper distance (eye relief) between the scope and your eye when firing a scoped rifle or shotgun. Always keep a safe distance between the muzzle of your firearm and any persons nearby, as muzzle blast, debris and ejecting shells could inflict serious injury. Also, wear eye protection when disassembling and cleaning your shotgun to prevent the possibility of springs, spring-tensioned parts, solvents or other agents from contacting your eyes.

14 **DROPPING OR JARRING A LOADED GUN CAN CAUSE AN ACCIDENTAL DISCHARGE** even with the "safety" in the "on safe" position. Be extremely careful while hunting or during any shooting activity, to avoid dropping any firearm.

15 **IF YOUR RIFLE FAILS TO FIRE, KEEP THE MUZZLE POINTED IN A SAFE DIRECTION.** Hold this position for a minimum of 30 seconds. Carefully open the action and remove the cartridge. If the primer is indented, the cartridge should be disposed of in a way that cannot cause harm. If the primer is not indented, your firearm should be examined by a qualified gunsmith and the cause of the malfunction should be corrected before further use.

16 **BE DEFENSIVE AND ON GUARD AGAINST UNSAFE GUN HANDLING AROUND YOU AND OTHERS.** Don't be timid when it comes to gun safety. If you observe other shooters violating any of these safety precautions, politely suggest safer handling practices.

17 **BE CERTAIN YOUR RIFLE IS UNLOADED BEFORE CLEANING.** Because so many gun accidents occur when a firearm is being cleaned, special and extreme care should be taken to be sure your gun is unloaded

before disassembly, cleaning and reassembly. Keep ammunition away from the cleaning location. Never test the mechanical function of any firearm with live ammunition.

18 **TEACH AND SUPERVISE FIREARMS SAFETY TO ALL MEMBERS OF YOUR FAMILY — ESPECIALLY TO CHLDREN AND NONSHOOTERS.** Closely supervise newcomers to the shooting sports. Encourage enrollment in hunting/shooting safety courses.

19 **NEVER DRINK ALCOHOLIC BEVERAGES OR TAKE ANY TYPE OF DRUGS BEFORE OR DURING SHOOTING.** Your vision and judgment could be dangerously impaired, making your gun handling unsafe to you and to others.

20 **READ AND HEED ALL WARNINGS** in this instruction book, on ammunition boxes and with all accessories that you install on your firearm. It is your responsibility to secure the most up-to-date information on the safe handling procedures of your Browning gun. Browning assumes no liability for incidents which occur when unsafe or improper gun accessories or ammunition combinations are used.

21 **PERIODIC MAINTENANCE — AVOID UNAUTHORIZED SERVICING.** Your rifle is a mechanical device which will not last forever, and as such, is subject to wear and requires periodic inspection, adjustment, and service. Browning firearms should be serviced by a Browning Recommended Service Center or by Browning's service facility in Arnold, Missouri. Browning cannot assume any responsibility for injuries suffered or caused by unauthorized servicing, alterations or modifications of Browning firearms.

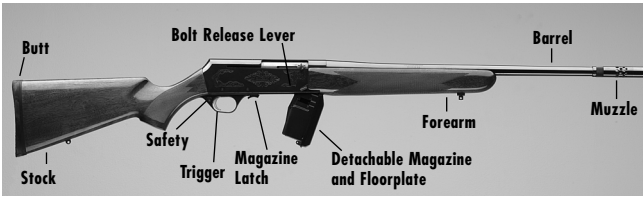
22 **BROWNING RESERVES THE RIGHT TO REFUSE SERVICE ON FIREARMS THAT HAVE BEEN ALTERED, ADDED TO OR SUBSTANTIALLY CHANGED.** Removal of metal from barrel(s), or modifications of the firing mechanism and/or operating parts may lead to Browning's refusal of service on such firearms. Browning will charge the owner for parts and labor to return the firearm to original Browning specifications.

DO NOT, UNDER ANY CIRCUMSTANCES, ALTER THE TRIGGER, SAFETY OR PARTS OF THE FIRING MECHANISM OF THIS OR ANY OTHER FIREARM. FAILURE TO OBEY THIS WARNING MAY RESULT IN INJURY OR DEATH TO YOURSELF OR OTHERS.

23 Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm and other serious physical injury. HAVE ADEQUATE VENTILATION AT ALL TIMES. Wash hands thoroughly after exposure.

## BE CAREFUL!

FIGURE 1




## NOMENCLATURE

In conventional gun terminology the position and movement of gun parts are described as they occur with the gun horizontal and in normal firing position; i.e., the muzzle is forward or in front; the buttstock is rearward or to the rear; the trigger is downward or underneath; the sights are upward or on top.

## GENERAL OPERATING PROCEDURE

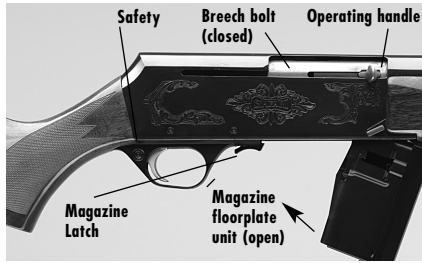
The Browning BAR Mark II Safari and BAR Mark II Lightweight are gas operated, semi-automatic repeating rifles. The Mark II Safari has a steel blued receiver while the Lightweight has an alloy receiver with a shorter 20" barrel. (24" on magnums.) Both function identically. With cartridges in the magazine and the chamber and the safety in the OFF SAFE or FIRE position, the rifle will fire a single round with each successive pull of the trigger until the magazine and chamber are empty. When the last round has been fired, the bolt will be held in its rearward, or open position. This facilitates speedy, convenient loading. Prior to reloading, place the safety in the "on safe" position (see "loading the rifle," pages 8-9). Always maintain proper control of the muzzle. To close the bolt, simply depress the bolt release lever or pull the operating handle backward and release it. (Magazine must be loaded.) During this operation, exercise care that your fingers do not enter the ejection port in the receiver.

## OPERATION OF THE SAFETY

**CAUTION: THE "SAFETY" SHOULD BE KEPT IN ITS "ON SAFE" POSITION AT ALL TIMES EXCEPT WHEN ACTUALLY FIRING THE RIFLE.** The trigger-block type safety is conveniently located on the trigger guard just rearward

of the trigger. (See Figure 2) This is an ideal location for manipulation of the large safety head with the index finger of either hand. With the safety pushed completely to the right, the rifle is ON SAFE and rearward movement of the trigger is completely blocked.

FIGURE 2




With safety pushed completely to the left the rifle is OFF SAFE and ready to fire. In this FIRE or OFF SAFE position a band of RED is visible on the safety where it projects beyond the left face of the trigger guard. CAUTION: If your rifle was purchased used, the safety may have been reversed for a left-handed shooter. Please take time to inspect your rifle's safety for the positioning mentioned above, and become familiar with its operation and position in the ON and OFF SAFE mode.

Whenever a cartridge is chambered, the rifle should be ON SAFE until it is ready to be fired.

NOTE: If a **left-handed safety** is needed, the safety can be reversed by a competent gunsmith or send it to our Arnold, Missouri Service Facility.

## LOADING THE RIFLE

CAUTION: Keep your fingers clear of the ejection port at all times when the bolt is locked open. The bolt will close with considerable force, if you should depress the bolt release lever or pull the operating handle backward.

The Browning semi-automatic high power rifle utilizes a unique detachable box magazine. The capacity of the magazine is four rounds (three rounds for magnum calibers). Another cartridge may be carried in the chamber, providing a total rifle capacity of five rounds (four rounds for magnum calibers).

To ready the rifle for loading, first ensure that the safety is in the ON SAFE position.

FIGURE 3

Next, hold the rifle in a natural position with the barrel safely pointing at the ground. Holding the rifle at the forearm, pull rearward on the magazine latch with the index finger of the opposite hand, allowing the hinged floorplate-magazine unit to swing downward. The magazine is now ready to be loaded. (See Figure 3.)

If it is desired to load a round into the chamber prior to loading the magazine, the following steps should be taken. First, be sure the safety is in the ON SAFE position. Hold the gun on its side with the barrel pointing safely downward with either hand at the rear of the forearm, as described earlier. With the rifle held in this position the ejection port in the receiver should be facing up. Next, with the magazine floorplate open and the bolt locked open, insert one round into the ejection port, allowing it to drop completely into the chamber. Then, close the bolt by depressing the bolt release lever. The bolt should be allowed to slam closed from its open position. If the bolt is not allowed to close in this manner, there is the possibility that it will not close completely, in which event the rifle will not fire.

It is safer to hunt with an empty chamber until in the presence of game. In this situation, quietness in chambering a cartridge is sometimes of prime importance. To accomplish this, cycle the action slowly and quietly by pulling the operating handle to its full rearward position and releasing it while keeping the operating handle controlled. You may want to first practice this with an empty chamber.

It is both convenient and fast to load the magazine while it is attached to the floorplate in the open position. However, some may prefer to load the magazine after detaching it from the floorplate. Both methods will be described.

## LOADING THE MAGAZINE WITH MAGAZINE ATTACHED TO FLOORPLATE

Always be sure the gun is ON SAFE, and the muzzle is pointed in a safe direction, since there may be occasions when you will want to load or replenish the magazine while a round is chambered. Hold the rifle in a safe barrel down position, using either hand on the forearm and pull rearward on the magazine latch to allow the magazine floorplate to swing downward. Each cartridge should then be carefully inserted into the magazine against the pressure of the spring loaded follower, until it is retained by the metal lips of the magazine body. Care should be exercised in positioning each cartridge so that its base is to the rear of the magazine. If the nose of a cartridge protrudes beyond the end of the magazine, it could cause feeding problems or interfere with the closing of the magazine floorplate. (See Figure 4.)

FIGURE 4

## LOADING THE MAGAZINE WITH MAGAZINE DETACHED FROM FLOORPLATE

Once again, place the rifle ON SAFE and be sure the muzzle is pointed in a safe direction. With the magazine-floorplate unit open, the magazine may be detached by merely pulling it away from the hinged floorplate. To do so, grasp the sides of the magazine toward its rear with the thumb and middle finger of either hand. Then, pull the

magazine away from the floorplate while at the same time bearing against the projecting rear of the floorplate with the index finger. (See Figure 5.)

FIGURE 5

The rifle may be supported in its barrel down position during this procedure with the opposite hand at the forearm. Once the magazine is detached it may be loaded with cartridges as described earlier. To re-attach, insert the small tab on the front face of the magazine into the matching groove in the forward end of the floorplate. Then snap the rear of the magazine firmly into place. Extra magazines may be carried loaded for rapid replacement of an empty magazine, using this same procedure.

After loading the magazine, attach it to the floorplate. Swing the magazine floorplate into place until retained by the magazine latch. If a round has not already been placed into the chamber, a round may be chambered by depressing the bolt release lever and allowing the bolt to slam closed.

Once a round has been chambered, the magazine-floorplate unit may again be opened at any time desired for refilling to capacity.

## UNLOADING THE RIFLE

With the rifle ON SAFE and pointed in a safe downward direction release the magazine-floorplate to its open position. Grasp the bolt operating handle and move it to the rear, thereby extracting and ejecting any live round in the chamber. The magazine may then be detached and either kept loaded or the cartridges may be stripped from it with the thumb of either hand. As is always good safety practice, visually inspect the chamber to be absolutely sure a round is not still present. Once this is determined the bolt may be allowed to close.

To unload the magazine merely push forward on the base of each round until it clears the retaining lips. The last step is to close the floorplate either without the magazine or with an empty magazine in place.

## TRIGGER

The trigger mechanism has been adjusted at the factory to provide a short crisp pull, yet one consistent with safety. The trigger is a single stage design with the weight of pull holding closely to 4 pounds. It is recommended that no attempt be made to change the weight of pull of the trigger.

## REMOVING THE TRIGGER GROUP

This procedure should rarely, if ever, need to be performed. However, if the receiver area of your BAR should become excessively dirty it may be helpful to remove the trigger group and expose the inner cavity of the receiver for cleaning.

**DO NOT ALTER OR ATTEMPT TO DISASSEMBLE ANY PART OF THE TRIGGER GROUP OR REMOVE OR DISASSEMBLE THE BREECH BOLT MECHANISM.**

If any service of the trigger group becomes necessary, take your BAR Mark II to a recommended Browning Service Center or send it to our service center in Arnold, Missouri.

## DISASSEMBLY

1 First, make certain the gun is totally unloaded and the safety is ON SAFE.

2 Release the breechblock to its forward position by depressing the bolt release lever. Swing open the magazine.

3 Push in the two trigger guard pins from either the right or left side of the receiver. Use a drive punch or similar object, using caution not to scratch the gun's receiver. (See Figure 6.) Push the trigger guard pins clear through the receiver.

4 Grasp the trigger guard and pull the trigger assembly out of the receiver. (See Figure 7.)

5 Perform any cleaning of the parts and receiver cavity as necessary.

**DO NOT DISASSEMBLE THE TRIGGER GROUP BEYOND THIS POINT.**

## TRIGGER GROUP REASSEMBLY

1 Before reinstalling the trigger group, make sure that the breech bolt is fully forward and engaged in the locked position.

2. Visually check the safety on the trigger guard to make certain it is still in the ON SAFE position.

3 Insert the trigger group back into the receiver, lining up the holes in the trigger assembly with the holes on each side of the receiver.

FIGURE 6

FIGURE 7

FIGURE 8

4 Re-insert the trigger guard pins from either side of the receiver and gently tap them into place again using caution not to scratch the receiver. (See Figure 8.)

## CLEANING SUGGESTIONS

The correct procedure for cleaning your rifle is as follows:

1 **BE CERTAIN THE RIFLE IS UNLOADED AND THE SAFETY IS IN THE ON SAFE POSITION.** Again, to unload your rifle, eject any live round in the chamber by pulling the operating handle to the rear. Unload the magazine by pushing forward on the base of each round until it clears the retaining lips.

2 **PULL THE BOLT FULLY REARWARD WITH THE OPERATING HANDLE.** It will be held in this open position if the magazine is installed. If the magazine is missing, open the bolt and manually push the bolt release lever up to lock the action open.

3 **USING A RIFLE CLEANING ROD WITH TIP AND PATCH LARGE ENOUGH FOR SNUG FIT IN BORE,** insert rod and patch in barrel from the muzzle end and run back and forth several times. Caution should be exercised to ensure that the cleaning rod or handle does not strike the crown of the muzzle, as damage to this area can adversely affect the accuracy of the rifle.

4 **INSPECT THE CHAMBER AND BORE FOR POWDER FOULING.** A normal amount of powder residue can be expected and is not serious. It can usually be removed by repeating step number 3, using a patch saturated with nitro-solvent. If or when fouling should become heavy, it can be removed with a brass bore brush. Dip the brush in nitro-solvent and scrub the chamber and bore until the fouling is removed. To prevent brass bristles from breaking off, the brush should be pushed completely through the bore before being withdrawn. Your BAR will operate smoothly and reliably with a clean bore and chamber.

5 **AFTER FOULING HAS BEEN REMOVED, THE BORE SHOULD BE WIPED DRY.** Then pass a slightly oiled patch through it for preservation. A fine, light gun oil like Browning Oil is recommended.

6 **THE INTERIOR OF THE RECEIVER AND THE BOLT SHOULD PERIODICALLY BE WIPED OFF WITH A CLEAN RAG.** This is best done with the trigger group removed, see "Removing the Trigger Group"on pages 13 and 14, and with the magazine floorplate open and the bolt in its open position.

Any dried oil in these areas and on the magazine follower should be removed. Follow this cleaning by applying a very light film of oil on the affected parts. Do not pour large quantities of oil into the action. An excess of oil will run into the wood and cause it to soften or warp.

7 **WIPE ALL EXPOSED METAL SURFACES WITH AN OILED CLOTH, MAKING SURE TO WIPE GUN CLEAN OF ALL FINGER MARKS.** Finger marks should be removed because they provide a place where moisture can accumulate. Ordinary good judgment will, of course, indicate that the metal of the gun should receive a light film of oil any time the gun has been exposed to adverse weather or handling.

8 **THE WOOD SURFACES OF YOUR BAR CAN ALSO BE WIPED LIGHTLY WITH BROWNING OIL,** or you can apply a quality wood or furniture polish to the stock and forearm. Using one of these methods (not both), will enhance the beauty and durability of your BAR.

9 **CLEANING INSTRUCTIONS:** To ensure proper functioning of your BAR it should be periodically inspected and cleaned. Any time when sluggish or incomplete operation of the action is experienced while using commercial ammunition, the action should be cleaned. The following procedure should be followed:

## DISASSEMBLY

**NEVER ATTEMPT TO TAKE YOUR BAR APART FURTHER THAN EXPLAINED IN THIS MANUAL.**

This is a specialized, finely fitted mechanism. You may permanently mar it by attempting to disassemble the inner mechanism assemblies. If further disassembly for service or cleaning is required, take your gun to a Browning recommended Service Center or a competent gunsmith, or send it to our Arnold, Missouri Service Facility as explained under "Service or Repair" on the back cover.

1 **BE CERTAIN THE RIFLE IS UNLOADED.**

With the rifle in the ON SAFE position and pointed in a safe downward direction, release the magazine floorplate to its open position. Grasp the bolt operating handle and move it smartly to the rear,

thereby extracting and ejecting any live round in the chamber. Remove all rounds from the magazine and remove it from the floorplate. Always visually inspect the chamber to make sure there are no rounds present. (See page 12 for instructions on removing and unloading the magazine.)

2 Remove forearm: Loosen and remove the forearm swivel eyelet with a small wrench by turning in a counterclockwise direction. Care should be taken to prevent scratching the forearm. Grasp the forward end of the forearm and pull away from the barrel carefully until firm resistance is felt. Then slide the forearm forward and off. (The forearm must be pulled away from the barrel so that the forearm will clear the bottom of the gas cylinder as the forearm is moved forward.) Note: The forearm cannot be removed unless the bolt is locked open. In order to lock the bolt open, pull the bolt back and manually engage the bolt release lever by pushing it up. The bolt will lock.

FIGURE 9

Pull action bar forward and out.

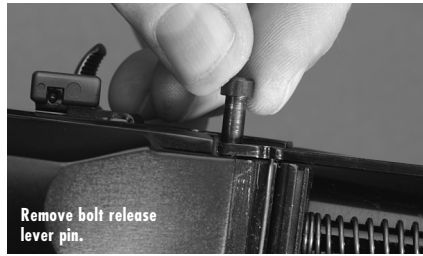
3 Remove action bars: Close the bolt gently by depressing the bolt release lever and easing the cocking handle forward. To remove the left action bar pull the forward end away from its slot on the inertia piece. Then lower and pull the action bar forward and out of the receiver. (See Figure 9.) Remove the right

FIGURE 10

Remove bolt release lever spring.

action bar by first releasing the bolt release lever spring from the bolt release lever and removing the spring from the receiver. (See Figure 10.) Remove the bolt release lever pin and pull the bolt release lever forward and out of the receiver. (See Figure 11.) You can then pull the forward end of the action bar away from the inertia piece and lower and pull the action bar out of the receiver.

FIGURE 11




4 Remove gas cylinder screw cap from the forward end of the gas cylinder: Turn in a counter-clockwise direction. (See Figure 12.) Use an 11/16" wrench for this step.

FIGURE 12

5 Remove the gas piston: The inertia block should be pulled back toward the receiver until rear face of the gas piston can be pushed forward out of the gas cylinder with a small soft drive punch. (See Figure 13.)

FIGURE 13

NOTE: An extremely dirty gas cylinder and gas piston may require forcefully moving the gas piston forward with a hammer and soft drive punch. Extreme care must be used to avoid scoring parts. If the gas piston will not move with moderate force, place a couple of drops of nitro-solvent around the gas piston, wait about 15 minutes, and then try to push the piston out with the drive punch. If the piston still will not move, apply more nitro-solvent on the piston and allow it to set overnight before attempting to remove it.

6 Remove the inertia block, action spring, and action spring guide: Tightly grip by hand the rear portion of the action and action spring guide and pull forward toward gas cylinder until the action spring guide is clear of its recess in the receiver. The rear end of the action spring guide can then be moved to one side of the receiver and then rearward to remove the action spring, action spring guide, and inertia block. (See Figure 14.)

FIGURE 14

The gas cylinder can now be examined for accumulations of residue. Residues in the gas cylinder and on the gas piston should be thoroughly removed with a good quality powder solvent or bore cleaner. If residues are heavy, they can be removed by scrubbing the gas cylinder with a 20 gauge shotgun bronze wire bore brush and a good solvent.

NOTE: the gas cylinder screw located on the gas cylinder is set at the factory. **DO NOT CHANGE THE SETTING ON THE GAS CYLINDER SCREW.**

Any changes to the gas cylinder screw may adversely affect the accuracy and operation of your rifle.

The gas piston, gas cylinder, and other parts covered by the forearm should be wiped with a very lightly oiled cloth after cleaning. The gas cylinder interior and the gas piston **SHOULD NOT BE OILED** beyond this.

## REASSEMBLY

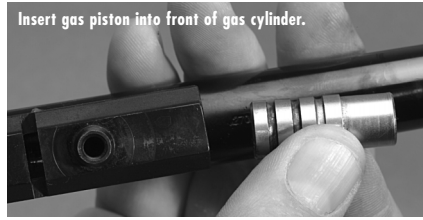
1 Replace the action spring, action spring guide, and inertia block: Grasp the action spring, action spring guide, and inertia block and push the action spring and guide forward until it fits into the gas cylinder. (See Figure 15.) Position the other end of the action spring guide into the recess in the receiver. (See Figure 16.)

2 Insert the gas piston into the front of the gas cylinder: Make sure the end of the gas piston with the hole goes in first. (See Figure 17.) Push the gas piston rearward so the end of the action spring guide fits

FIGURE 15

FIGURE 16

FIGURE 17



into the hole in the gas piston. To be sure that the gas piston is properly aligned in the gas cylinder, the gas piston should be able to be pushed partially out of the rear end of the gas cylinder when the inertia block is pulled away from the gas cylinder.

FIGURE 18

FIGURE 19

3 Screw on and tighten the gas cylinder screw cap on the front of the gas cylinder.

4 Replace the action bars: Place the bolt in its forward position. It is helpful to release the magazine floorplate to the open position so you can check alignment of the action bars on the bolt. Place the projecting section of each action bar carefully in its corresponding slot in the bolt before the action bar is fit onto the inertia piece. (See Figure 18.) The action bars are interchangeable. It may be necessary to pull the inertia piece slightly rearward to engage the action bars.

5 Replace the bolt release spring and bolt release lever and pin: Close the magazine floorplate and keep the bolt in its forward position. Replace the bolt release spring. (See Figure 19.) Replace the bolt release lever. Line the hole in the bolt release lever with the hole in the receiver and insert the bolt release pin. Lock the bolt release spring onto the bolt release lever.

6 With the bolt locked in the open position, slide the forearm all the way down until it fits onto the receiver. When fitting the forearm onto the receiver, grasp the forward end of the forearm and pull it away from the barrel. (See Figure 20.) Be very careful in reassembly of the forearm, since it can be broken if forced into position incorrectly.

FIGURE 20

FIGURE 21

## ADJUSTING THE SIGHT

The BAR is available with or without open sights. Always unload your rifle before making any alignment to the sights. Remember, always move your rear sight in the same direction you want the point of the bullet impact to move. If you want the point of bullet impact to move to the left, move the rear sight setting to the left. If you want to raise the point of impact, raise your rear sight setting.

1 If horizontal or windage correction is desired, loosen or tighten the screw on the side of the rear sight notch to the desired setting. (See Figure 21.) Each calibration mark represents approximately 1/4 inch movement of the point of impact at 100 yards.

2 If vertical correction is desired, loosen or tighten the vertical adjustment screw located in front of the rear sight notch. Again, calibration marks on the sight represent approximately 1/4 inch at 100 yards.

# NOTES

# NOTES

## SERVICE OR REPAIR

If your firearm should require service or repairs, we suggest you first contact a local recommended Browning Firearms Service Center. Contact your Browning sporting goods dealer or call our Service Department for the address of the Service Center nearest you. Otherwise, you may send your firearm directly to our own Service Department. For technical questions about your firearm or service call our Service Department.

Browning Service Department
3005 Arnold Tenbrook Road
Arnold, Missouri 63010-9406
Phone 1-800-322-4626

Canadian Customers call or write:

Browning Canada Sports Ltd./Ltee,
5617 Chemin St-François
St-Laurent, Quebec H4S 1W6
Phone: (514) 333-7261

When returning your firearm for servicing, you must do the following:

1. Be sure it is completely unloaded.
2. Package it securely in a cardboard container.
3. Enclose a letter with your firearm that clearly describes the trouble experienced and the repairs desired.
4. If convenient, send a copy of the letter to us separately.
5. Never return ammunition with your firearm. It is against postal and most commerce regulations.

If you have any questions about this manual or about any other Browning products, call or write our Consumer Information Department:

Browning Consumer Information
Morgan Utah 84050
Phone: (801) 876-2711

## *You Are Responsible For Firearms Safety*

As a gun owner, you accept a set of demanding responsibilities. How seriously you take these responsibilities can mean the difference between life and death. Failure to follow any of these instructions can cause extensive damage to your gun and/or possible serious injury or death to yourself and others. There is no excuse for careless or abusive handling of any firearm. At all times handle any firearm with intense respect for its power and potential danger.

***PLEASE READ AND UNDERSTAND ALL OF THE CAUTIONS, PROPER HANDLING PROCEDURES AND INSTRUCTIONS OUTLINED IN THE OWNER'S MANUAL BEFORE USING YOUR NEW FIREARM.***

1. ***ALWAYS KEEP THE MUZZLE OF YOUR RIFLE POINTED IN A SAFE DIRECTION***, even though you are certain that the rifle is unloaded. Never point any firearm at anything you do not intend to shoot. Be extremely alert and aware of all persons and property within the range of your ammunition.

2. ***NEVER RELY TOTALLY ON YOUR RIFLE'S MECHANICAL "SAFETY" DEVICE.*** The word "safety" describes a gun's trigger block mechanism, sear block mechanism, hammer block mechanism or firing pin block mechanism. These mechanical devices are designed to place your gun in a ***SAFER*** status. No guarantee can be made that the gun will not fire even if the "safety" is in the "on safe" position. See **"Operations of the Safety"** for instructions on operation of YOUR gun's "safety."
   ***LIKE ANY MECHANICAL DEVICE, A "SAFETY" CAN SOMETIMES FAIL; IT CAN BE JARRED OR INADVERTENTLY MANIPULATED INTO AN UNSAFE CONDITION.***
   Mechanical "safeties" merely aid safe gun handling and are no excuse for pointing your rifle's muzzle in an unsafe direction.
   While it is a good idea to "test" your rifle's mechanical "safeties" periodically for proper function, ***NEVER TEST IT WHILE YOUR RIFLE IS LOADED OR POINTED IN AN UNSAFE DIRECTION***
   Safe gun handling does not stop with your gun's mechanical "safety devices -- it starts there. Always treat your rifle with the respect due a loaded, ready-to-fire firearm.

3. ***WHENEVER YOU HANDLE A FIREARM, OR HAND IT TO SOMEONE, ALWAYS OPEN THE ACTION IMMEDIATELY, VISUALLY CHECK YOUR RIFLE'S CHAMBER, FEED MECHANISM AND MAGAZINE.***
   Make certain they do not inadvertently contain any ammunition. Always keep the chamber empty and "safety" in the "on safe" position unless shooting is imminent.

4. ***DO NOT TRANSPORT YOUR RIFLE LOADED, WHETHER IN A SCABBARD, GUN CASE, OR OTHER CONTAINER.***

5. ***HUNTING FROM ELEVATED SURFACES SUCH AS TREE STANDS IS DANGEROUS,*** and may increase the risk of handling a firearm. The following rules should always be observed by you and those you hunt with: ***Always*** make certain that the stand being used is safe and stable. ***Always*** make certain that your firearm is unloaded when it is being taken up to and down from the stand. ***Always*** make certain that your firearm is not dropped from the stand, or dropped while it is being taken up to or down from the stand. ***Remember***, a loaded firearm may discharge when dropped, even with the safety in the "on safe" position.

6. ***BEWARE OF BARREL OBSTRUCTIONS,*** for the safety of both your gun and yourself. Mud, snow, and an infinite variety of other obstructions may inadvertently lodge in a barrel bore. It takes only one small obstruction to cause dangerously increased pressures that can ruin (swell or rupture) the finest rifle barrels.
***BEFORE CHECKING FOR A BARREL OBSTRUCTION, BE CERTAIN NO LIVE ROUND IS IN THE CHAMBER AND THAT THE MAGAZINE IS REMOVED AND FEED MECHANISMS ARE COMPLETELY EMPTY. PLACE THE "SAFETY" IN THE "ON SAFE" POSITION.***
Look through the barrel to be sure it is clear of any obstruction. If an obstruction is seen, no matter how small it may be, clean the bore with a cleaning rod and patch as described in **"Cleaning and Maintenance Suggestions."** Before the first firing, clean the bore with a cleaning rod and patch, and wipe away any anti-rust compound in the action/chamber areas.

7. ***ALWAYS UNLOAD YOUR RIFLE WHEN NOT IN USE. REFER TO "UNLOADING THE RIFLE" FOR AN EXPLANATION OF HOW TO UNLOAD YOUR RIFLE PROPERLY.***
As a safety precaution, it is preferable to disassemble your gun for storage. Store your gun and ammunition separately -- well beyond the reach of children. Take all safeguards to ensure your rifle does not become available to untrained, inexperienced or unwelcome hands.

8. ***USE THE PROPER AMMUNITION.***
The barrel and action of this rifle have been made with substantial safety margins over the pressures developed by established American commercial loads. Nevertheless, Browning assumes no liability for incidents which occur through the use of cartridges of nonstandard dimensions which develop pressures in excess of commercially available ammunition with standards established by the Sporting Arms and Ammunitions Manufacturers' Institute (SAAMI).
***BE ALERT TO THE SIGNS OF AMMUNITION MALFUNCTION.***
If you detect an off sound or light recoil when a cartridge s fired, ***DO NOT LOAD ANOTHER CARTRIDGE INTO THE CHAMBER.*** Open the action and remove all cartridges from the magazine, chamber and action areas. With the action open, glance down the barrel to make sure that an obstruction does not remain in the barrel. If there is an obstruction, completely clear the barrel before loading and firing again. Failure to follow these instructions can cause extensive damage to your gun and possible serious injury to yourself and others.
***MAKE SURE OF ADEQUATE VENTILATION IN THE AREA THAT YOU DISCHARGE A FIREARM. WASH HANDS THOROUGHLY AFTER EXPOSURE TO AMMUNITION OR CLEANING A FIREARM.***
Lead exposure can be obtained from discharging firearms in poorly ventilated areas, cleaning firearms or handling ammunition. Lead is a substance that has been known to cause birth defects, reproductive harm and other serious injury.

9. ***DO NOT SNAP THE FIRING PIN ON AN EMPTY CHAMBER -- THE CHAMBER MAY NOT BE EMPTY!***
Treat every gun with the respect due a loaded gun, even though you are certain the gun is unloaded.

10. ***KEEP FINGERS AWAY FROM THE TRIGGER WHILE UNLOADING, LOADING, UNTIL YOU ARE READY TO SHOOT.***

11. ***BE SURE OF YOUR TARGET AND BACKSTOP.***
    Particularly during low light periods. Know the range of your ammunition. Never shoot at water or hard object.

12. ***ALWAYS UNLOAD YOUR RIFLE'S CHAMBER BEFORE CROSSING A FENCE, CLIMBING A TREE, JUMPING A DITCH OR NEGOTIATING OTHER OBSTACLES.***
    Refer to **"Unloading The Rifle"** for instructions on the unloading of your rifle. Never place your loaded rifle on or against a fence, tree, car or other similar object.

13. ***WEAR EYE AND EAR PROTECTION WHEN SHOOTING.***
    Unprotected, repeated exposure to gunfire can cause hearing damage. Wear ear protectors (shooting ear plugs or muffs) to guard against such damage. Wear shooting glasses to protect your eyes from flying particles. Allow proper distance (eye relief) between the scope and your eye when firing a scoped rifle or shotgun. Always keep a safe distance between the muzzle of your firearm and any persons nearby, as muzzle blast, debris and ejecting shells could inflict serious injury. Also, wear eye protection when disassembling and cleaning your shotgun to prevent the possibility of springs, spring-tensioned parts, solvent or other agents from contacting your eyes.

14. ***DROPPING A LOADED GUN CAN CAUSE AN ACCIDENTAL DISCHARGE*** even with the "safety" in the "on safe" position. Be extremely careful while hunting or during any shooting activity, to avoid dropping any firearm.

15. ***IF YOUR RIFLE FAILS TO FIRE, KEEP THE MUZZLE POINTED IN A SAFE DIRECTION.***
    Hold this position for a minimum of 30 seconds. Carefully open the action and remove the cartridge. If the primer is indented, the cartridge should be disposed of in a way that cannot cause harm. If the primer is not indented, your firearm should be examined by a qualified gunsmith and the cause of the malfunction should be corrected before further use.

16. ***BE DEFENSIVE AND ON GUARD AGAINST UNSAFE GUN HANDLING AROUND YOU AND OTHERS.***
    Don't be timid when it comes to gun safety. If you observe other shooters violating any of these safety precautions, politely suggest safer handling practices.

17. ***BE CERTAIN YOUR RIFLE IS UNLOADED BEFORE CLEANING.*** Because so many gun accidents occur when a firearm is being cleaned, special and extreme care should be taken to be sure your gun is unloaded before disassembly, cleaning and reassembly. Keep ammunition away from the cleaning location. Never test the mechanical function of any firearm with live ammunition.

18. ***TEACH AND SUPERVISE FIREARMS SAFETY TO ALL MEMBERS OF YOUR FAMILY -- ESPECIALLY TO CHILDREN AND NONSHOOTERS.***
    Closely supervise newcomers to the shooting sports. Encourage enrolling in hunting/shooting safety courses.

19. ***NEVER DRINK ALCOHOLIC BEVERAGES OR TAKE ANY TYPE OF DRUGS BEFORE OR DURING SHOOTING.***
    Your vision and judgment could be dangerously impaired, making your gun handling unsafe to you and to others.

20. ***READ AND HEED ALL WARNINGS*** in this instruction book, on ammunition boxes and with all accessories that you install on your firearm. It is your responsibility to secure the most up-to-date information on the safe handling procedures of your Browning gun. Browning assumes no liability for incidents which occur when unsafe or improper gun accessories or ammunition combinations are used.

21. ***PERIODIC MAINTENANCE -- AVOID UNAUTHORIZED SERVICING.***
Your rifle is a mechanical device which will not last forever, and as such, is subject to wear and requires periodic inspection, adjustment and service. Browning firearms should be serviced by a Browning Recommended Service Center or by Browning's service facility in Arnold, Missouri. Browning cannot assume any responsibility for injuries suffered or caused by unauthorized servicing, alterations or modifications of Browning firearms.

22. ***BROWNING RESERVES THE RIGHT TO REFUSE SERVICE ON FIREARMS THAT HAVE BEEN ALTERED, ADDED TO OR SUBSTANTIALLY CHANGED.***
Removal of metal from barrel(s), or modification of the firing mechanism and/or operating parts may lead to Browning's refusal of service on such firearms. Browning will charge the owner parts and labor to return the firearm to original Browning specifications.
***DO NOT, UNDER ANY CIRCUMSTANCES, ALTER THE TRIGGER, SAFETY OR PARTS OF THE FIRING MECHANISM OF THIS OR ANY OTHER FIREARM. FAILURE TO OBEY THIS WARNING MAY RESULT IN INJURY OR DEATH TO YOURSELF OR OTHERS.***

# *BE CAREFUL!*

**WWW.BROWNING.COM**
**BROWNING US:** Morgan, Utah 84050-9326
**BROWNING CANADA:** Browning Canada Sports Ltd/Ltee,St-Laurent, Quebec, H4S 1W6
**BROWNING INTL:** Parc Industriel des Hauts-Sarts, B-4040 Herstal, Belgium

KP0004/98355